



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,376	02/23/2004	Arvind Sundararajan	ORACL-01391US1	8926
80548	7590	12/30/2009		
FLIESLER MEYER LLP			EXAMINER	
650 CALIFORNIA STREET			PATEL, MANGLESH M	
14TH FLOOR				
SAN FRANCISCO, CA 94108			ART UNIT	PAPER NUMBER
			2178	
NOTIFICATION DATE	DELIVERY MODE			
12/30/2009	ELECTRONIC			

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OFFICEACTIONS@FDML.COM

<b>Office Action Summary</b>	<b>Application No.</b> 10/784,376	<b>Applicant(s)</b> SUNDARARAJAN ET AL.
	<b>Examiner</b> MANGLESH M. PATEL	<b>Art Unit</b> 2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 20 August 2009.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 11,19,20 and 23 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 11,19,20 and 23 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/88/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. This FINAL rejection is responsive to the amendment filed on 8/20/2009.
2. In the amendment claims 11, 19 and 23-30 are pending. Claims 12-18 & 20-22 are canceled. Claims 11, 19 and 26 are the independent claims.

**Withdrawn Rejections**

3. The 35 U.S.C. 102(a) rejections of claims 11, 15 and 19 with cited reference of Lee (U.S. 6,480,865) have been withdrawn in light of the amendment.

**Claim Rejections - 35 USC § 103**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 11, 19 and 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carey (U.S. 6,947,945, filed on Mar. 21, 2000) in view of Leong (U.S. 7,020,641, filed on Oct. 22, 2001)

**Regarding Independent claims 11 and 19, generating a transformation file by employing a query language, said transformation file containing a set of rules to transform data between two or more formats having different shapes; attaching the**

transformation file to a workflow, such that the set of rules are referenced from inside the workflow; associating at compile time, a first shape of a first data structure with an intermediate shape representation based on the set of rules of the transformation file, wherein the first shape defines a structure and layout of data in the first data structure; receiving a second data structure having a second shape that is different from the first shape of the first data structure; applying the intermediate shape representation to the second data structure; mapping the second data structure from the intermediate shape representation to the first shape of the first data structure; and generating a runtime object containing the data obtained from the second data structure and having the first shape of the first data structure and using the runtime object as input for a component of said workflow.

Carey discloses generating a transformation file by employing a query language (see abstract). The transformation file generated from the XML queries is a language neutral intermediate representation (column 3, lines 10-25). A first shape of a first data structure represented as tables in the database are associated with a intermediate shape from the language neutral representation. A second shape different from the first shape having a different structure represented within the column of the relational tables is processed by the language neutral representation (column 4, lines 10-53 & column 5, lines 15-67). The second data element is mapped from the intermediate representation to the first shape to generate the new XML elements from the data bindings for an SQL query. Carey doesn't explicitly disclose the generation of a Runtime object used as input for a workflow.

Leong discloses transformation of XML objects into Java object which are then generated into runtime objects for input into workflows such as the OOD API (column 5, lines 45-67 & column 8, lines 3-35). At the time of the invention it would have been obvious for one of ordinary skill to have modified the teachings of Carey to support the sharing of objects between different applications. The motivation for doing so would have been to provide extensibility between different data formats by using a transformation file.

**Regarding Dependent claim 23**, with dependency of claim 1, Carey fails to disclose a compiled plan used for transformation. Leong discloses compiling the transformation file to generate a compiled plan; and storing the compiled plan for use at runtime, such that the compiled plan is used to convert data from the intermediate representation (column 5, lines 45-67 & column 8, lines 3-35). At the time of the invention it would have been obvious for one of ordinary skill to have modified the teachings of Carey to support the sharing of objects between different applications. The motivation for doing so would have been to provide extensibility between different data formats by using a transformation file.

**Regarding Dependent claim 24**, with dependency of claim 1, Carey discloses wherein multiple data structure sources are combined into a single result object by using the intermediate shape representation (column 4, lines 10-53 & column 5, lines 15-67, including the explanation provided in the Independent claim).

**Regarding Dependent claim 25**, with dependency of claim1, Carey discloses wherein the transformation file is included in the workflow by implementing a control within the workflow, said control invoking transformations during send or receive operations from the workflow (column 4, lines 10-53 & column 5, lines 15-67, including the explanation provided in the Independent claim).

**Regarding Independent claim 26**, A method for declaratively transforming data between different data formats, said method comprising: employing a query language to associate a default extensible markup language (XML) representation with a data shape of each JAVA class in a set of JAVA classes, wherein the set of JAVA classes are used to communicate information in a workflow; invoking the workflow; receiving an XML document containing data as part of execution of said workflow, said data in the XML document having an XML data shape; applying the default XML representation to the data in the XML document having the XML data shape; and mapping the data in the XML document from the default XML representation to the data shape of the JAVA class; and generating a runtime JAVA object containing data obtained from the XML document, said data having the data shape of the JAVA class.

Carey discloses generating a transformation file by employing a query language (see abstract). The transformation file generated from the XML queries is a language neutral intermediate representation (column 3, lines 10-25). A first shape of a first data structure represented as tables in the database are associated with a intermediate shape from the

language neutral representation. A second shape different from the first shape having a different structure represented within the column of the relational tables is processed by the language neutral representation (column 4, lines 10-53 & column 5, lines 15-67). The second data element is mapped from the intermediate representation to the first shape to generate the new XML elements from the data bindings for an SQL query. Carey doesn't explicitly disclose the generation of a Runtime object used as input for a workflow.

Leong discloses transformation of XML objects into JAVA object which are then generated into runtime objects for input into workflows such as the OOD API (column 5, lines 45-67 & column 8, lines 3-35). At the time of the invention it would have been obvious for one of ordinary skill to have modified the teachings of Carey to support the sharing of objects between different applications. The motivation for doing so would have been to provide extensibility between different data formats by using a transformation file.

**Regarding Dependent claim 27**, with dependency of claim 26, Carey fails to disclose a compiled plan used for transformation. Leong discloses combining a plurality of XML documents and scalar values in order to generate a single runtime JAVA object (column 5, lines 45-67 & column 8, lines 3-35). At the time of the invention it would have been obvious for one of ordinary skill to have modified the teachings of Carey to support the sharing of objects between different applications. The motivation for doing so would have been to provide extensibility between different data formats by using a transformation file.

**Regarding Dependent claim 28,** with dependency of claim 26, Carey discloses storing a plurality of default XML representations in a transformation file; attaching the transformation file to the workflow, such that the plurality of default XML representations is referenced within the workflow (column 4, lines 10-53 & column 5, lines 15-67, including the explanation provided in the Independent claim).

**Regarding Dependent claim 29,** with dependency of claim 26, Carey fails to disclose a compiled plan used for transformation. Leong discloses wherein an engine receives a query language specification and generates a sequence of rules used to transform the XML document from the XML data shape to the data shape of the JAVA class (column 5, lines 45-67 & column 8, lines 3-35). At the time of the invention it would have been obvious for one of ordinary skill to have modified the teachings of Carey to support the sharing of objects between different applications. The motivation for doing so would have been to provide extensibility between different data formats by using a transformation file.

**Regarding Dependent claim 30,** with dependency of claim 28, Carey discloses wherein the transformation file is included in the workflow by implementing a control within the workflow, said control invoking transformations during send or receive operations from the workflow (column 4, lines 10-53 & column 5, lines 15-67, including the explanation provided in the Independent claim).

**It is noted that any citation [|s|] to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. [|See, MPEP 2123|]**

#### **Response to Arguments**

6. Applicants arguments filed on 8/20/2009 have been fully considered but are moot in view of the new grounds of rejection.

#### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manglesh M. Patel whose telephone number is (571) 272-5937. The examiner can normally be reached on M, W 6 am-3 pm T, TH 6 am-2pm, Fr 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen S. Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manglesh M. Patel  
Patent Examiner (AU 2178)  
December 19, 2009

/Manglesh M Patel/  
Manglesh Patel  
Examiner, Art Unit 2178

Application/Control Number: 10/784,376  
Art Unit: 2178

Page 10

/Stephen S. Hong/

Supervisory Patent Examiner, Art Unit 2178